

REMARKS

In the Office Action dated June 4, 2004, the Examiner rejected Claims 1, 4-6, 10, 12, 15-18, 23 and 26-28 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,400,267 (“Denen”). Claims 2, 3, 7-9, 11, 13, 14, 19-22, 24, 25 and 29-32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Denen in view of U.S. Patent No. 6,119,913 (“Adams”). Claims 33-41 and 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Adams in view of Denen. Lastly, Claims 42 and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Adams in view of Denen and in further view of U.S. Patent No. 5,433,721 (“Hooven”).

The office action and the references cited therein have been carefully considered. In view of the amendments presented herewith, and based on the following remarks, Applicant submits that the instant application is in condition for allowance.

INFORMATION DISCLOSURE STATEMENT

Applicant respectfully requests that the Examiner consider the Information Disclosure Statements filed on June 2, 2004 and June 18, 2004. The Information Disclosure Statement filed on June 18, 2004 includes a copy of the English translation of the cited Russian reference addressed by the Examiner in the present Office Action. In addition, Applicant respectfully requests that the Examiner consider the Information Disclosure Statement filed by Applicant on May 18, 2004. It appears that this Information Disclosure Statement was not processed by the Patent and Trademark Office in sufficient time to enable the Examiner to consider such statement at the time of issuance of the present Office Action on June 4, 2004. Accordingly, consideration of this Information Disclosure Statement is also respectfully requested.

Claim Rejections - 35 U.S.C. § 103

Claims 1, 4-6, 10, 12, 15-18, 23 and 26-28

The Examiner rejected claims 1, 4-6, 10, 12, 15-18, 23 and 26-28 as being obvious over Denen. Applicant has amended independent claims 1, 12 and 23 to recite a rotatable drive shaft within the coupling to enable the electro-mechanical device to operate the surgical device and a sensor to enable detection of rotational movement of the rotatable drive shaft.

Additionally, independent claims 1, 12, and 23 have been amended to relate to the feature in which the memory unit is configured to store data representing usage of the surgical instrument as reflected by the rotational movement of the rotatable drive shaft detected by the sensor. In this regard, the sensor can detect the amount of rotational movement of the drive shaft during use of the surgical instrument. Such data is useful to provide a present and a historical indication of the amount of usage of the surgical instrument attached. Such usage data can then be stored in the memory unit, as set forth in the amended claims, in order, for example, to monitor and/or limit usage of the surgical instrument based on the historical amount of usage of the instrument as reflected by the usage data generated by the sensor detecting rotational movement of the rotatable drive shaft and thereafter stored in the memory unit. These features are not disclosed, suggested or taught in Denen alone, or in combination with Adams. Further, while Hooven discloses the use of a sensor, the purpose is the help operate the surgical device during an on-going procedure. There is no teaching in Hooven of storing such data in a memory unit. Hence, there is no teaching in any combination of these references of using a sensor on a rotatable shaft to generate usage data that is stored on a memory unit housed inside the surgical device. More specifically, the claimed arrangement enables a surgical instrument driven by a rotatable drive shaft to be monitored during use by sensors for the drive shaft. Then

the surgical instrument can be disconnected from the electro-mechanical device for later reuse on the same or different electro-mechanical device with usage data relating to the rotational movement of the drive shaft being stored on a memory unit housed within the surgical instrument itself. This claimed feature is not taught or suggested by the applied references either alone or in proper combination with one another.

Denen teaches a scalpel 10 having a handle 11, a blade 12 and a memory 30 disposed within the instrument. There is no teaching whatsoever in Denen of the use of a rotatable drive shaft within the coupling to enable the electro-mechanical device to operate the surgical device. Further, there is no teaching or suggestion in Denen of the use of a sensor to enable detection of rotational movement of the rotatable drive shaft. Even more importantly, there is no teaching of the use of a memory unit for storing data representing the rotational movement of the rotatable drive shaft. Furthermore, even though the Examiner has not suggested a combination with Adams, it is apparent that Adams would not overcome the deficiency of Denen. In this regard, Adams does not teach or suggest the use of a sensor to enable detection of rotational movement of a rotatable drive shaft as claimed by Applicant. Likewise, even a further combination with Hooven would not yield the claimed invention. Hooven does not suggest that data from sensors for a rotatable shaft should be stored in a memory unit on the surgical device as claimed by Applicant. Returning to the Examiner's specific rejection, however, Denen does not teach or suggest the instrument as claimed in amended claims 1, 12 and 23. Accordingly, such claims are patentable over Denen alone or in combination with Adams and Hooven.

Claims 4-6, 10, 15-18 and 26-28 are dependent on amended claims 1, 12 and 23 and incorporate all the features of claims 1, 12 and 23. Therefore, dependent claims 4-6, 10, 15-18 and 26-28 are patentable over Denen for at least the same reasons that claims 1, 12 and 23 are

patentable.

New claims 45-48 are dependent on independent claims 1, 12 and 23. New claims 45 and 46 relate to the feature relating to where the sensor is positioned to detect rotational movement of the rotatable drive shaft. New claim 47 relates to the feature in which the amount of rotational movement of the rotatable drive shaft is detected, whereas new claim 48 relates to the feature in which the direction of rotational movement of the rotatable drive shaft is detected. These new claims are patentable for at least the same reasons as claims 1, 12, and 23.

Claims 2, 3, 7-9, 11, 13, 14, 19-22, 24, 25 and 29-32

The Examiner rejected claims 2, 3, 7-9, 11, 13, 14, 19-22, 24, 25 and 29-32 as being unpatentable over Denen and in view of Adams. Claims 2, 3, 7-9, 11, 13, 14, 19-22, 24, 25 and 29-32 are dependent on amended claims 1, 12 and 23 and incorporate all the respective features of claims 1, 12 and 23, including a rotatable drive shaft within the coupling to enable the electro-mechanical device to operate the surgical device; a sensor to enable detection of rotational movement of the rotatable drive shaft; and a memory unit on the surgical device to store usage data representing rotational movement of the rotatable shaft detected by the sensor. Therefore, for the same reasons previously discussed, dependent claims 2, 3, 7-9, 11, 13, 14, 19-22, 24, 25 and 29-32 include subject matter not taught or suggested by Denen or Adams, either alone or in combination, or even in further combination with Hooven. Therefore, claims 2, 3, 7-9, 11, 13, 14, 19-22, 24, 25 and 29-32 are patentable over the combination of Denen and Adams.

Claims 33-41 and 43

The Examiner rejected claims 33-41 and 43 as being obvious over Adams in view of Denen. Claim 33 has been amended to recite a sensor to enable detection of rotational movement of the rotatable drive shaft and a memory unit on the surgical device configured to store usage data representing the rotational movement of the shaft detected by the sensors. As discussed above, Adams does not teach or suggest a sensor to detect rotatable movement of the drive shaft. Neither does Denen. Accordingly, a combination of Adams and Denen does not teach or suggest Applicant's claimed invention. Therefore, amended claim 33 is patentable over Adams in view of Denen. Moreover, there is no evidence that a person having ordinary skill in the art would have been motivated to add a memory unit to the instrument in Adams to record usage information derived from the rotational movement of the drive shaft detected by the sensor. As previously discussed, Hooven does not fill this void.

Claims 34-41 and 43 are dependent on amended claim 33 and incorporate all the features of amended claim 33. Therefore, claims 34-41 and 43 are patentable over Adams in view of Denen for at least the same reasons that amended independent claim 33 is patentable. Therefore, Applicant requests that the Examiner reconsider the rejections to claims 33-41 and 43.

Claims 42 and 44

The Examiner rejected claims 42 and 44 as being obvious over Adams in view of Denen in further view of Hooven. Claims 42 and 44 are dependent on amended claim 33 and incorporate all the features of amended claim 33, including but not limited to a sensor to enable detection of rotational movement of the rotatable drive shaft and a memory unit on the surgical

instrument configured to store the usage data reflective of the movement of the rotatable shaft detected by the sensor. Neither Adams nor Denen teaches or suggests this claimed feature, as discussed above. The deficiency in Adams and Denen is not remedied by combining such references with Hooven. Hooven et al teaches an endoscopic surgical instrument, but does not teach or suggest the use of a sensor for detecting rotation of the rotatable shaft to produce usage data that is stored on a memory unit on the surgical device. Therefore, claims 42 and 44 are patentable over Adams in view of Denen and in further view of Hooven.

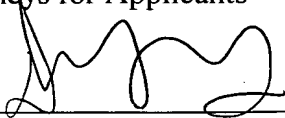
Conclusion

In light of the foregoing amendments and remarks, Applicant believes that the application is in condition for allowance. The Examiner is encouraged to contact the undersigned attorney if the Examiner believes that issues remain regarding the allowability of this application.

Respectfully submitted,

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